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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,514	12/03/2003	Martin Heeney	MERCK-2791	3769
23599	7590	10/11/2005	EXAMINER	
MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201			WU, SHEAN CHIU	
		ART UNIT		PAPER NUMBER
				1756

DATE MAILED: 10/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/725,514	HEENEY ET AL.
	Examiner Shean C. Wu	Art Unit 1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 07 July 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 8,9 and 12-23 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-7,10,11 and 24-30 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) 1-30 are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>12/9/04</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

### **DETAILED ACTION**

1. Applicant's election without traverse of the formula I wherein X=1,4-phenylene, R<sup>1</sup>=R<sup>2</sup>=H, R<sup>3</sup>=R<sup>4</sup>=n-hexyl and n=1000 in the reply filed on 7/7/05 is acknowledged. The elected species reads on Claims 1-7, 10-11 and 24-30. The elected species does not read on Claims 14-17 because the compound of formula I comprises at least one polymerizable group, which is not elected. Therefore, the claims 8-9 and 12-23 are withdrawn from consideration as non-elected invention.

#### ***Claim Objections***

2. Claim 3 is objected to because of the following informalities:

The notation "1" after structure should be changed to -- I1 – to correct a typographical error. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7, 10-11 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by CAPLUS 2002: 63007.

The reference discloses the polymer containing the elected species. Therefore, the reference (inherently) anticipates the claimed invention (see RN 249575-22-2).

5. Claims 1-7, 10-11, 24-25, 27 and 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by CAPLUS 2000: 634223 (or Macromolecules, 1999, vol. 32, page 6889-6891), CAPLU 2000: 140376 and CAPLUS 1998: 44686.

The references disclose an electrically conductive and fluorescent poly (1,4-bis (3-alkyl-2-thienyl) phenylene, which phenylene is symmetrically connected to alkyl-substituted thiophene (see RN 201533-36-0, 201533-39-3 and 201533-42-8). . . .  
Particularly see the compounds of formulae 8a and 8b in the reference cited by Macromolecules. These compounds read on the claimed compound of formula I and II. Also these regioregular polymers have conductive properties and optical application such as liquid crystal display and solid-state devices. Therefore, the references anticipate the claimed invention.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over CAPLUS 2000: 634223 (Macromolecules, 1999, vol. 32, page 6889-6891), 2000: 140376 and 1998: 44686.

The references differ from the claim (claim 26) in that the claimed device comprises field effect transistors (FET). Since FET is known as components of integrated circuitry, which is useful for liquid crystal and solid-state applications, it would have been obvious to those skilled in the art to utilize the reference compounds in a device comprising FET to arrive at the claimed invention.

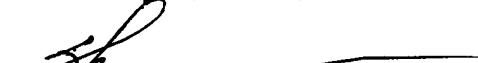
With respect to claim 30, the references do not specify the degree of polymerization as claim. However, the degree of polymerization can be modified and prepared by one ordinary skilled in the art according to their need, therefore, it would have been obvious to those skilled in the art to follow the polymerization process of the references teaching to arrive the claimed invention.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shean C. Wu whose telephone number is 571-272-1393. The examiner can normally be reached on 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Shean C Wu  
Primary Examiner  
Art Unit 1756

scw